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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

**Office Action Summary****Application No.**

10/595,332

**Applicant(s)**

DENNERT ET AL.

**Examiner**

QUN SHEN

**Art Unit**

2617

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 19 March 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 2-15 and 17-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 2-15, 17-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 March 2010 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB-06)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

1. This is First Action non Final on the merits (RCE). Claims 2, 5-10, 12, 14, 19-20 have been amended. Claims 2-15, 17-20 are currently pending and have been considered below.

#### ***Priority***

2. Applicant's foreign priority claim for the benefits of German Patent Application No. 103 47617.2 on the basis of 35 U.S.C. 119 a-d & f, filed in the German Patent Office on October 9, 2003 is acknowledged.

#### ***Drawings***

3. Correction of Fig 2 is accepted and objected withdrawn.

#### **Claim Objection**

4. Correction is accepted and objection of claim 5 is withdrawn.

#### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
  2. Ascertaining the differences between the prior art and the claims at issue.
  3. Resolving the level of ordinary skill in the pertinent art.
  4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
5. **Claims 2-4 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 0101707 A1 Immonen et al. (hereinafter Immonen), in view of US 6,771,761 B1, LaPierre (hereinafter LaPierre).**

Regarding claim 2, Immonen discloses a method to optimize the use of resources of a public telecommunication network during the switching of one or more parallel calls to one or more end devices of a plurality of end devices that form a multiple-device configuration (abstract – an automatic call distribution method, Figs 1-2), comprising: before a call is delivery, an intelligent call control of the public telecommunications network determines the system statuses of the system statuses of said plurality of end devices in the multiple- device configuration being called or of identification chips connected to the end devices being called (pg 3, lines 3-4, lines 10-12, status of subscriber) and of the switching facilities involved by polling databases of the end devices being called or the identification chips connected to the corresponding said end devices being called (pg 3, lines 15-23, lines 31-35, also pg 5, lines 21 – 28, BSC –

mobile service switching center involved with the call) and mobility/profile databases assigned to the switching facilities involved (pg 5, lines 24-34 VLR (visitor location register database – mobility database), whereupon – based on the data on the system statuses of the end devices being called (status of subscriber, see above) or the identification chips connected to such end devices - an optimal call delivery is performed (connect the call, wherein only call attempts promising success are initiated (pg 8, line 28 – pg 9, line 7).

Immonen does not expressly disclose that the one or more end devices of a plurality of end devices all having a uniform calling number of a single subscriber. LaPierre, in the same field of endeavor, teaches that a call can be made to a subscriber with a single universal telephone number (e.g. uniform calling number) with more than one end device or destination, such as pager, mobile phone, modem etc. in a multiple device configuration (LaPierre: col 1, line 65 – col 2, line 39, a universal phone number to be routed to landline, cellular phones, paging devices, facsimile machines, modem, and other similar devices - which form a multiple-device configuration). Consider Immonen and LaPierre's teachings together, it would have been obvious to one of skill in the art to combine both teachings by incorporating LaPierre's a single universal phone number for a subscriber in a multiple-device configuration as described above to provide a quick user-selectable routing of calls to devices such as fax machine and modem (therefore more efficiently utilizing the network resources) (LaPierre: col 1, lines 57-62).

Regarding claim 3, Immonen as modified discloses the method according to claim 2, wherein the system statuses of the end devices called or of the identification chips connected to the end devices being called are determined before the actual call delivery (Immonen: pg 3, lines 1-9, check subscriber status information of the terminal before connecting the call).

Regarding claim 4, Immonen as modified discloses the method according to claim 2, wherein in case it can be derived from the data on the system status that an end device is free to receive a call, the call is first delivered (Immonen: pg 4, lines 10-18, pg 14, lines 16-22) and that in case the connection is not used, the occupied line is released again to the origin of the connection (Immonen: pg 9 lines 1 – 3, the caller not replying to the network's announcement about the released number (e.g. caller is not making the call, or connection not being used), CCBS service is removed from the network for the present call (e.g. line is released).

Regarding claim 17, Immonen as modified discloses the method according to claim 3, wherein in case it can be derived from the data on the system status that an end device is free to receive a call, the call is first delivered and that in case the connection is not used, the occupied line is released again to the origin of the connection (see analysis of claim 4, rejected with the same reason).

**6. Claims 5-6, 8-14 and 18-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Immonen, in view of LaPierre, and further in view of US 5,812,639 Bartholomew et al. (hereinafter Bartholomew).**

Regarding claim 5, Immonen as modified discloses the method according to claim 4 and call forwarding process and feature and to establish a direct connection to a desired call forwarding target (Immonen: pg 2 lines 4 – 13, conditional call forwarding, LaPierre: col 1, lines 32 – 45, call forwarding feature, lines 46-56, col 4, lines 1-13) but is lack of details in call forwarding process, such as in case the call has not been accepted, using the previously determined statuses of the end devices being called or of the pertinent identification chips connected to the corresponding end devices, a direct connection is established to a desired call forwarding target. Bartholomew teaches call forwarding approaches including in case the call has not been accepted (if no one answers the call for a certain ring count), using the previously determined statuses of the end devices being called (the number of ring count as no answer condition, for example) or of the pertinent identification chips connected to the corresponding end devices, a direct connection is established to a desired call forwarding target (AIN routes the calls directly to the voice mail system). (see Bartholomew: Fig 6, col 26, lines 5 – 19, also col 20, lines 43-67).

Therefore, consider Immonen as modified and Bartholomew's teachings as whole, it would have been obvious to one of skill in the art at the time of invention to incorporate Bartholomew's call forwarding details into Immonen as modified's optimal call

distribution system for more efficient message forwarding (Bartholomew: col 4 lines 22-36, automatic or semi-automatic call forwarding).

Regarding claim 6, Immonen as modified (by LaPierre) discloses a method to optimize the use of resources of a public telecommunication network during the switching of one or more parallel calls to one or more end devices of a plurality of end devices of a single subscriber all having a uniform calling number that form a multiple-device configuration (see analysis of claim 2), comprising:

before a call is delivered an intelligent call control of the public telecommunications network determines the system statuses of the end devices being called or of identification chips connected to the end devices being called and of the switching facilities involved by polling databases of the end devices being called or the identification chips connected to the corresponding end devices being called and mobility/profile databases assigned to the switching facilities involved, whereupon - based on the data on the system statuses of the end devices being called or the identification chips connected to such end devices - an optimal call delivery is performed, wherein only call attempts promising success are initiated (see analysis of claim 2). Immonen does not expressly disclose wherein call forwarding is initiated in the original switching facility by a central control based on the data from the evaluation of the system statuses of all end devices being called or of the identification chips connected to the end devices being called. Bartholomew, however, teaches a switch based call forwarding approach (Bartholomew: Figs 5-6) where call forwarding is



facilitated by the switching facility (Bartholomew: col 26, lines 5-14, col 41, lines 34 – 38. Note that no switch change is taught by Bartholomew – by default, using the original switching facility for call forwarding). Such switching based call forwarding is based on status information of the subscriber being evaluated (Bartholomew: col 20, lines 28 – 37). Therefore, consider both Immonen and Bartholomew's teachings as a whole, it would have been obvious to one of skill in the art at time of invention to modify Immonen as modified's automatic control distribution method by incorporating Bartholomew's teachings on switch based call forwarding approach for convenient call forwarding using common channel signaling.

Regarding claim 8, Immonen as modified discloses a method according to claim 2, wherein during forwarding of a call to an end device a certain occupancy of resources required to complete the call results from the type of the desired call (Bartholomew: abstract, col 5, lines 25-32, one type - telephone line, lines 33-36, another type direct incall line, both can handle call forwarding services) wherein before the call is delivered, an intelligent call control determines the system status of at least one end device being called or of the identification chip connected to the at least one said end device and of the switching facility or facilities involved (see analysis of claims 2 and 3).

Regarding claim 9, Immonen as modified discloses the method according to claim 8, wherein the system status of at least one said end device and of the at least one switching facility is determined by polling the mobility/profile databases of the at least

one end device or of the identification chip connected to the at least one said end device and of the at least one switching facility involved (Immonen: Fig 1, pg 5, line 16-pg 6, line 2, two databases comprising information on mobile subscribers, HLR and VLR (visitor location registration) of switching facility (MSC)., also pg 6, lines 3 - 30).

Regarding claim 10, Immonen as modified discloses the method according to claim 9, wherein an optimal call delivery is derived from the data on the system status of at least one end device being called, or of the identification chip connected to the at least one said end device in such a manner that only call attempts that promise success with the associated occupancy of the corresponding network resources are initiated (see analysis of claim 2 and 8).

Regarding claim 11, Immonen as modified discloses the method according to claim 8, wherein, using the previously determined information, any call attempts expected to fail are eliminated before the actual call delivery (Bartholomew: col 29, lines 27-35, the common channel signaling system determines that the call cannot be completed. The attempt to establish a connection is terminated).

Regarding claim 12, Immonen as modified discloses the method according to claim 8, wherein in case it can be derived from the data on the system status that at least one said end device is free to receive a call, the call is first delivered and that in case the connection is not used, the occupied line is released again to the origin of the

connection (see analysis and rejection of claim 4, rejected with the same reason).

Regarding claim 13, Immonen as modified discloses the method according to claim 12, wherein in case the call has not been accepted, using the previously determined settings of the at least one end device or of the pertinent identification chips connected to the at least one end device, a direct connection is established to the desired call forwarding target (see analysis of claim 5, rejected with the same reason).

Regarding claim 14, Immonen as modified discloses the method according to claim 8, wherein the call forwarding is initiated in the original switching facility by at least one central control based on data from the evaluation of the system status of at least one end device being called or of the identification chip connected to the at least one said end device (see analysis of claim 6, also Immonen: pg 2, line 32 – pg 3, line 12, also pg 3, lines 14-35, Bartholomew: spirit of claim 7, a controller ( a central control) arranged separately from the trunks and being connected to at least some of the signal switching point (switching facility) for forwarding a message).

**7. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Immonen, in view of LaPierre, and further in view of US 2004/0005910 A1, Tom (hereinafter Tom).**

Regarding claim 7, Immonen as modified discloses a method to optimize the use of resources of a public telecommunication network during the switching of one or more parallel calls to one or more end devices of a plurality of end devices of a single subscriber all having a uniform calling number that form a multiple-device configuration (see analysis of claim 2), comprising: before a call is delivered an intelligent call control of the public telecommunications network determines the system statuses of the end devices being called or of identification chips connected to the end devices being called and of the switching facilities involved by polling databases of the end devices being called or the identification chips connected to the corresponding end devices being called and mobility/profile databases assigned to the switching facilities involved, whereupon - based on the data on the system statuses of said plurality of end devices being called in the multiple-device configuration or the identification chips connected to such end devices - an optimal call delivery is performed, wherein only call attempts promising success are initiated (see analysis of claim 2). Immonen as modified does not expressly disclose wherein the profile data of the mobility/profile database of the identification chip connected to one end device is synchronized with the profile data of the mobility/profile databases of the identification chips connected to the other end devices. Tom, however, teaches devices with two SIM cards to store user data (e.g. with user profile data bases) which can be synchronized (Tom: Fig 7, par. 0109). Consider both Immonen and Tom's teachings together, it would have been obvious to one of skill in the art at the time of invention to modify Immonen as modified's device of call control by incorporating Tom's teachings on synchronization of user data profiles of

two SIM cards. One would be motivated to do for providing more convenient call forwarding between end devices with different SIM cards.

**8. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Immonen, in view of LaPierre, and further in view of Bartholomew and Tom.**

Regarding claim 15, Immonen as modified discloses the method according to claim 8, wherein profile data of the mobility/profile database of the identification chip connected to the at least one end device is synchronized with profile data of the mobility/profile databases of other identification chips connected to the other end devices of a subscriber (Tom: Fig 7, pars 0077, 0109).

**9. Claims 18-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Immonen, in view of LaPierre, and further in view of EP 0740482 A1, Proudler et al. (hereinafter Proudler).**

Regarding claims 18-19, Immonen as modified discloses the method according to claims 3-4, wherein call forwarding is initiated in the original switching facility by a central control based on data from the evaluation of the system status of end device being called or of the identification chips connected to the end device being called status (see analysis of claims 2, 3 or 4) but does not expressly disclose the details of call forwarding being initiated with the statuses of all said end devices being called or of the identification chips connected to the end devices being called. Proudler, however,

teaches a telephone management system for call transfer (forwarding) based operational statuses of all devices (cell phone, cordless phone, answer machine, etc. (Proudler: abstract, Fig 1). Therefore, consider Immonen as modified (by LaPierre) and Proudler's teachings as a whole, it would have been obvious to one of skill in the art at the time of invention to expand Immonen as modified's method of initiating call forwarding by incorporating Proudler's teachings in statuses of all end devices involved in the call forwarding processes.

**10. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Immonen, in view of LaPierre and further in view of Bartholomew and Proudler.**

Regarding claim 20, Immonen as modified discloses the method according to claim 5, wherein call forwarding is initiated in the original switching facility by a central control based on data from the evaluation of the system status of end device being called or of the identification chips connected to the end device being called status (see analysis of claims 2, 3 or 4) but does not expressly disclose call forwarding is initiated with the statuses of all said end devices being called or of the identification chips connected to the end devices being called. Proudler, however, teaches a telephone management system for call transfer (forwarding) based operational statuses of all devices (cell phone, cordless phone, answer machine, etc. (Proudler: abstract, Fig 1). Therefore, consider both Immonen and Proudler's teachings as a whole, it would have been obvious to one of skill in the art at the time of invention to expand Immonen's

method of initiating call forwarding by incorporating Proudler's teachings in statuses of all end devices involved in the call forwarding processes.

### **Response to Argument**

Applicant's arguments filed on March 19, 2010 (with RCE) are fully considered but moot in view of new ground of rejection.

### ***Contact Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to QUN SHEN whose telephone number is (571)270-7927. The examiner can normally be reached on Monday through Thursday, 9:30am-5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lewis West can be reached on 571-272-7859. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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